



# Scaling sustainable agriculture

## Lessons from natural farming in India

In Andhra Pradesh, India, family farmers are transitioning to Community Managed Natural Farming. Since 2018, the University of Reading and partners have generated robust evidence that natural farming can maintain yields, reduce input costs, improve food security and support women's empowerment. These findings highlight why UK development policy should support agricultural transitions that strengthen climate resilience while improving nutrition and livelihoods.



Women farmers share photographs and discuss their experiences of natural farming. Credit: S. Ponnolu for University of Reading.

### Policy recommendations

- **The FCDO should support agroecological approaches**, ensuring that UK funding promotes climate-resilient, nutrition-sensitive agriculture in the Global South.
- **The FCDO should use interdisciplinary evidence to guide agricultural transitions.** UK-funded programmes must draw on robust, interdisciplinary evidence that shows interconnected beneficial outcomes of natural farming – environmental sustainability, biodiversity, wellbeing and nutrition.
- **The FCDO should highlight the value of research-policy partnerships and community-led approaches.** It should promote engaging farmers and extension services and establish an enabling policy environment to ensure agricultural change is inclusive, locally appropriate and can be scaled.



## **Indian farming faces growing climate and sustainability pressures**

Farming systems in India face severe precarity. Erratic rainfall, rising temperatures and extreme weather events lead to frequent crop failure. Chemical fertilisers and pesticides degrade soil health and biodiversity. Over time, this reduces productivity and resilience.

### **What is natural farming and what are its benefits?**

‘Natural farming’ offers a lower-cost, farmer-led alternative to input-intensive agriculture. It uses intercropping, organic inputs and innovative soil improvements to reduce inputs and enhance household food security and nutrition – without degrading ecosystems. For example, our research from 300 households in dryland Andhra Pradesh found that natural farming households ate more legumes and nuts than those using chemicals.

### **Natural farming is emerging as a viable alternative to industrial agriculture**

- Farmers can maintain crop yields using natural farming, with ecology and food security benefits greatest in drier regions. Increasing crop diversity also lowers environmental and market risks.
- Natural farming particularly empowers women in smallholder households – increasing their influence in managing farmland, income from crop sales and spending decisions. This can lead to more diverse diets and better nutrition.
- Income from crop sales was found to be higher for smallholder households which had been using natural farming for more than three years, compared to those relying on chemicals. This shows natural farming households to be on a sustainable pathway.

### **Our collaborative research has identified how it can work at scale**

Since 2018, the University of Reading has worked with partners in Andhra Pradesh to evaluate the impact of natural farming. Across seasons and settings, we assessed soil health, crop performance, income, diet and food security. Communities used photography and theatre to share their experiences. Our interdisciplinary approach revealed novel insights to support farmers to take up natural farming.

### **But farming practices alone are not enough to improve nutrition**

For meaningful long-term outcomes, agricultural innovations need to be integrated with nutrition policies, improved market access, gender-sensitive social policy and equitable learning opportunities. Political will in India to support natural farming and build inclusive governance and extension services remains central to the success of such schemes.

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